

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended) A semiconductor apparatus comprising:
 - a semiconductor chip including a power semiconductor device constructed by using a wide band gap semiconductor;
 - a base material made of an electrically conductive material and connected to a part of a face of said semiconductor chip;
 - a heat conducting member in contact with a part of the face of said semiconductor chip;
 - and
 - an encapsulating material for encapsulating said semiconductor chip and said heat conducting member,
 - wherein a part of said base material is extruded outside said encapsulating material and works as an external connection terminal, and
wherein a first intermediate member made of an electrically conductive material and a second intermediate member made of a material having lower heat conductivity than said first intermediate member are provided between said base material and said semiconductor chip.
2. (Original) The semiconductor apparatus of Claim 1,
 - wherein said power semiconductor device has a region where a current passes at a current density of 50 A/cm² or more.

3. (Original) The semiconductor apparatus of Claim 1 or 2,

wherein said encapsulating material is made of a resin or glass, and

said heat conducting member is exposed from said encapsulating material.

4. (Original) The semiconductor apparatus of Claim 3, further comprising a radiation fin that is in contact with said heat conducting member and is extruded outside said encapsulating material.

5. (Original) The semiconductor apparatus of Claim 1 or 2, further comprising a film for covering said encapsulating material.

6. (Original) The semiconductor apparatus of Claim 5, further comprising a radiation fin opposing said heat conducting member with said film sandwiched therebetween.

7. (Cancelled)

8. (Currently Amended) The semiconductor apparatus of ~~any of Claims 1 through 7~~
claim 1,

wherein a contact area between said semiconductor chip and said base material is smaller than a half of an area of said semiconductor chip.

9. (Currently Amended) The semiconductor apparatus of ~~any of Claims 1 through 8~~
claim 1,

wherein said power semiconductor device is a vertical element, and
said semiconductor apparatus further comprises another semiconductor chip that is
stacked on said semiconductor chip and a part of which is connected to said base material.

10. (Currently Amended) The semiconductor apparatus of ~~any of Claims 1 through 9~~
claim 1,

wherein said external connection terminal of said base material is constructed to be
mounted on a print wiring board.

11. (Currently Amended) The semiconductor apparatus of ~~any of Claims 1 through 10~~
claim 1,

wherein said wide band gap semiconductor is SiC.

12. (Original) A semiconductor apparatus comprising:
a semiconductor chip including a power semiconductor device constructed by using a
wide band gap semiconductor;
a base material made of an electrically conductive material and connected to a part of a
face of said semiconductor chip;
a heat conducting member in contact with a part of the face of said semiconductor chip;
a vessel in contact with said heat conducting member and encapsulating said
semiconductor chip, said base material and said heat conducting member; and
an external connection terminal electrically connected to said base material and extruded
from said vessel.

13. (Original) The semiconductor apparatus of Claim 12,
wherein a region around said semiconductor chip, said base material and said heat
conducting member within said vessel is filled with glass, a resin, an inert gas or a gas reduced in
pressure.

14. (Original) The semiconductor apparatus of Claim 12 or 13, further comprising a
radiation fin opposing said heat conducting member with a part of said vessel sandwiched
therebetween.